

REMARKS

Claims 1, 6, 9, 11, 16, 18, 20, 30, 35-37, 45, and 51-62 have been amended. Claims 1-62 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claims 1, 5-7, 11, 14-16, 18, 20, 24, 30, 37, 45, 51 and 57 under 35 U.S.C. § 112, second paragraph as indefinite. Specifically, the Examiner submits that these claims include “intended use” recitations, that do not require anything new in that the limitations are “configured to”, “according to”, “operable to”, etc., “perform steps that practically any computer can be configured to perform.” The Examiner further submits that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and prior art in order to patentably distinguish the claimed invention from the prior art and that if the prior art structure is capable of performing the intended use, then it meets the claim.

Applicants assert that *functional limitations*, such as those recited in these claims, are not the same as *intended use language*, and do not render the claims indefinite. The courts have made this very clear. According to M.P.E.P. § 2173.05(g), “A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). A functional limitation must be evaluated and considered, just like any other limitation of the claim” (emphasis added). The courts have held that a functional claim limitation was “perfectly acceptable [to distinguish over the prior art] because it set definite boundaries on the patent protection sought.” *In re Barr*, 444 F.2d 588, 170 USPQ 33 (CCPA 1971).

In the above-referenced claims, *functional limitations* serve to distinguish “practically any computer” from one that is explicitly configured to perform the recited functions (e.g., through specific software instructions executed by the computer and/or specific hardware components). For example, claim 1 recites *a plurality of peer nodes operable to couple to a network, wherein the plurality of peer nodes are configured to implement a peer-to-peer environment on the network according to a peer-to-peer platform comprising one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share content in the peer-to-peer environment, and wherein each of the plurality of peer nodes is a host of content in the peer-to-peer environment*. It is clearly not the case that “practically any computer,” or plurality of such computers, absent specific hardware components and/or software instructions, inherently implements a peer-to-peer environment according to the limitations recited in the claim. In another example, claim 6 recites *the relay peer is operable to use the cached route information to route the received message to the peer node inside the mechanism*. It is clearly not the case that “practically any computer,” absent specific hardware components and/or software instructions, inherently routes messages across a partitioning mechanism using cached route information, nor that “practically any computer” inherently caches this specific information.

Applicants assert that, rather than rendering claims, 1, 5-7, 11, 14-16, 18, 20, 24, 30, 37, 45, 51 and 57 indefinite, the functional limitations recited in these claims serve to distinguish the structural elements recited therein (e.g., the peer nodes, relay nodes, etc.) from similar structures in the prior art.

For at least the reasons above, the withdrawal of the rejection of claims 1, 5-7, 11, 14-16, 18, 20, 24, 30, 37, 45, 51 and 57 under 35 U.S.C. § 112, second paragraph is respectfully requested.

Section 101 Rejection:

The Examiner rejected claims 51-56 and 57-62 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Examiner submits, “An article of manufacture is a software implementation and fails to fall into any of the four categories of invention: machine, manufacture, composition of matter or method.” Applicants assert that an “article of manufacture” is statutory subject matter. In fact, 35 U.S.C. § 101, quoted by the Examiner, specifically refers to a “manufacture” as patentable subject matter. There is no basis in the statute, case law or MPEP to support the Examiner’s assertion that reciting an “article of manufacture” in a claim means that the claim is non-statutory. Accordingly, the rejection is traversed. For reasons of expediency, claims 51-62 have been amended to recite a computer-readable storage medium storing software instructions computer-executable to implement the functionality of the claimed invention. However, Applicants do not view this as a change in the scope of the claim or as an amendment made for a reason of patentability. Applicants further note that “. . . a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus statutory” as stated in the MPEP §2106 IV.B.1(a) (*emphasis added*).

For at least the reasons above, the withdrawal of the rejection of claims 51-62 under 35 U.S.C. § 101 is respectfully requested.

Section 103(a) Rejection:

The Examiner rejected claims 1-62 under 35 U.S.C. § 103(a) as being unpatentable over Borella et al. (U.S. Patent 6,269,099) (hereinafter “Borella”) in view of Bommareddy et al. (U.S. Patent 6,880,089) (hereinafter “Bommareddy”). Applicants traverse this rejection for at least the following reasons.

Regarding claim 1, contrary to the Examiner's assertion, Borella in view of Bommareddy fails to teach or suggest *a plurality of peer nodes operable to couple to a network, wherein the plurality of peer nodes are configured to implement a peer-to-peer environment on the network according to a peer-to-peer platform comprising one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share content in the peer-to-peer environment, and wherein each of the plurality of peer nodes is a host of content in the peer-to-peer environment.*

The Examiner cites several passages of Borella as disclosing that peer-to-peer network devices are discovered by other network devices on multiple networks. These passages describe discovery of edge routers by other edge routers. However, nothing in these passages, or elsewhere in Borella or Bommareddy, describes a peer-to-peer platform protocol for any peer nodes to cooperate to form peer groups, as required by claim 1. Applicants note that the Examiner has failed to address this limitation in his remarks.

In addition, nothing in the cited art teaches or suggests *one of the plurality of peer nodes is a relay peer node operable to: couple to the network outside the mechanism, and further operable to receive a message from a peer node outside the mechanism, wherein the message is for a peer node inside the mechanism; and relay the message to the peer node inside the mechanism.* The Examiner submits that Borella discloses a message communicated via a router from one autonomous system to another autonomous system in column 6, line 61 – column 7, line 16, and in FIG. 1. However, the edge router of Borella is clearly not one of a plurality of peer nodes, according to the limitations recited in claim 1. For example, nothing in the cited art teaches or suggests that the edge router of Borella is a content host in the peer-to-peer environment, or that it is configured to cooperate with other peer nodes to form peer groups and share content in a peer-to-peer environment, nor would such functionality be inherent in a typical edge router. Therefore, the edge router of Borella does not teach or suggest the relay peer node of claim 1.

In remarks regarding claim 1, the Examiner states, “Borella does not explicitly teach the mechanism as a firewall. However, Bommareddy teaches a firewall clustering for multiple network servers,” and further submits that it would have been obvious to one of ordinary skill to incorporate the installation of a firewall in Borella’s invention to protect the network from unauthorized access (citing Bommareddy, column 3, line 50 – column 5, line 7, and column 6, lines 37-67). Applicants note, however, that claim 1 does not recite anything about a firewall. Therefore, the Examiner’s remarks are misdirected and do not provide sufficient motivation to combine the references in teaching the claimed invention.

Applicants remind the Examiner that to establish a *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some reason to do so. *In re Bond*, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). As discussed above, the cited art does not teach or suggest all limitations of the currently pending claims, nor has the Examiner stated a proper reason to combine the cited references.

For at least the reasons above, the rejection of claim 1 is unsupported by the cited art and removal thereof is respectfully requested.

Independent claims 11, 20, 30, 37, 45, 51, and 57 include limitations regarding the peer nodes being configured to cooperate to form peer groups, and a relay peer node that is one of a plurality of peer nodes having the limitations discussed above. Therefore, the arguments presented above apply with equal force to these claims, as well.

Further regarding independent claim 11, the cited art does not teach or suggest *wherein the plurality of peer nodes comprises one or more relay peer nodes operable to couple to the network outside the mechanism; wherein each of the peer nodes inside the*

mechanism are operable to publish an advertisement on the one or more relay peer nodes; and wherein each of the peer nodes outside the mechanism are operable to discover the advertisements for the peer nodes inside the mechanism published on the one or more relay peer nodes.

The Examiner cites column 6, line 61 – column 7, line 17, and FIG. 1, of Borella as teaching these limitations. However, this citation does not describe publishing an advertisement on a relay peer node, as the Examiner suggests. First, as discussed above, the edge router of Borella does not meet the limitations recited for the relay peer node of Applicants' claims. In addition, the cited passage has nothing to do with publishing a peer node advertisement on a relay peer node. The only mention of "advertising" in Borella is the following, "TCP/IP SYN segment 64 typically contains a TCP 38 Option for advertising a Maximum Segment Size ("MSS") that the network device can accept. TCP 38 allows multiple configuration Options to be set." This clearly does not teach or suggest the above-referenced limitation recited in claim 11.

In remarks regarding claim 11, the Examiner again states, "Borella does not explicitly teach the mechanism as a firewall. However, Bommareddy teaches a firewall clustering for multiple network servers," and further submits that it would have been obvious to one of ordinary skill to incorporate the installation of a firewall in Borella's invention to protect the network from unauthorized access (citing Bommareddy, column 3, line 50 – column 5, line 7, and column 6, lines 37-67). Applicants note that claim 11 does not recite anything about a firewall. Therefore, the Examiner's remarks are misdirected and do not provide sufficient motivation to combine the references in teaching the claimed invention.

Independent claims 30, 37, and 51 recite limitations similar to those recited in claim 11 regarding the publishing of peer node advertisements on a relay peer node. Therefore, the arguments presented above apply with equal force to these claims, as well.

Further regarding independent claim 45, the cited art fails to teach or suggest *one of the relay peer nodes caching route information describing one or more routes to other peer nodes on the network, wherein the route information is configured for use in routing messages between peer nodes in the peer-to-peer environment, and wherein the cached route information includes ordered sequences of peer identifiers configured for use in routing messages to destination peer nodes.*

The Examiner does not specifically address claim 45. However, in remarks regarding dependent claim 5, the Examiner cites Borella (column 7, lines 37-51) as teaching caching route information; and in remarks regarding dependent claim 8, the Examiner cites Bommarreddy (column 7, lines 1-51) as teaching the route information includes an ordered sequence of peer identifiers. However, the cited passages describe a discovery protocol for edge routers, and various functionality of a firewall cluster, respectively. Neither of the cited references describes anything about ordered sequences of peer identifiers cached as routing information on a relay peer node.

Independent claim 57 includes limitations similar to those recited in claim 45 and discussed above. Therefore, the arguments presented above apply with equal force to this claim as well.

Applicants assert that numerous ones of the dependent claims recite further distinctions over the cited art. Applicants traverse the rejection of these claims for at least the reasons given above in regard to the claims from which they depend. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time. Applicants reserve the right to present additional arguments.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-07100/RCK.

Respectfully submitted,

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